

**AMENDMENTS TO THE SPECIFICATION:**

Please replace the paragraph beginning at page 2, line 21 with the following rewritten paragraph:

To attain the above object, the present invention provides an illuminator including a pair of ~~a~~ an ultraviolet light-emitting discharge tube and a white visible light-emitting discharge tube that are alternately and periodically placed in a lighted state and an unlighted state, such that a state of illumination using only one of the ultraviolet light-emitting discharge tube and the white visible light-emitting discharge tube is realized in at least part of a time domain during the repetition period, the illuminator comprising a hot-cathode tube used for at least one of the ultraviolet light-emitting discharge tube and the white visible light-emitting discharge tube, the hot-cathode tube being arranged in a state where a heating power supply for heating filaments, and an illuminating power supply for enabling motion of thermoelectrons within the hot-cathode tube and at the same time periodic repetition of the lighted state and unlighted state, are capable of executing and interrupting application of voltage, independently of each other.